

## WEST Search History

DATE: Wednesday, August 20, 2003

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result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES;  
OP=ADJ*

L7	L6 and oxidiz\$3	14	L7
L6	L5 and reduc\$3 and calcining	23	L6
L5	L3 and cobalt	27	L5
L4	L3 and reduc\$3 near3 hydrogen	8	L4
L3	L2 and (citric acid or acetic acid or succinic acid or malonic acid or formic acid)	45	L3
L2	L1 and impregnat\$3 same (ammonium acetate or ammonium carbonate or ammonium citrate or ammonium nitrate)	213	L2
L1	(catalyst near2 regenerat\$3 or catalyst near2 enhancement or catalyst near2 activat\$3 or catalyst treatment)	36951	L1

END OF SEARCH HISTORY

L Number	Hits	Search Text	DB	Time stamp
1	21824	catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment	USPAT	2003/08/20 17:01
2	0	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and imgregnat\$3 same (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:05
3	0	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and imgregnat\$3 and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:06
4	0	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and imgregnat\$3 and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:07
5	1183	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:07
6	6	((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregant\$3	USPAT	2003/08/20 17:08
7	762	((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3	USPAT	2003/08/20 17:08
8	614	((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3) and reduc\$3 and calcin\$3	USPAT	2003/08/20 17:09

9	252	(((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3) and reduc\$3 and calcin\$3) and (hydrogenation near2 carbon monoxide or Fischer near1 tropsch)	USPAT	2003/08/20 17:10
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L Number	Hits	Search Text	DB	Time stamp
1	21824	catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment	USPAT	2003/08/20 17:01
2	0	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and imgrengnat\$3 same	USPAT	2003/08/20 17:05
3	0	(ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:06
4	0	(catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and imgrengnat\$3 and	USPAT	2003/08/20 17:07
5	1183	(ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)	USPAT	2003/08/20 17:07
6	6	((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregant\$3	USPAT	2003/08/20 17:08
7	762	((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3	USPAT	2003/08/20 17:08
8	614	((((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3) and reduc\$3 and calcin\$3	USPAT	2003/08/20 17:09

9	252	(((((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3) and reduc\$3 and calcin\$3) and (hydrogenation near2 carbon monoxide or Fischer near1 tropsch))	USPAT	2003/08/20 17:15
10	0	(((((catalyst near2 regenerat\$3 or catalyst near2 activat\$3 or catalyst near2 enhancement or catalyst near2 treatment) and (ammonium near1 acetate or ammonium near1 carbonate or ammonium near1 citrate or ammonium near1 nitrate or triethyl near1 ammonium near1 acetate)) and impregnat\$3) and reduc\$3 and calcin\$3) and (hydrogenation near2 carbon monoxide or Fischer near1 tropsch)) and non near1 oxidative	USPAT	2003/08/20 17:17
11	26679	catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:18
12	0	(catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment) and impregant\$3 same (ammonium near1 nitrate or ammonium near1 acetate or ammonium near1 citrate or ammonium near1 carbonate)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:21
13	6	(catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment) and impregant\$3 and (ammonium near1 nitrate or ammonium near1 acetate or ammonium near1 citrate or ammonium near1 carbonate)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:22
14	834	(catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment) and impregnat\$3 and (ammonium near1 nitrate or ammonium near1 acetate or ammonium near1 citrate or ammonium near1 carbonate)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:23
15	337	((catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment) and impregnat\$3 and (ammonium near1 nitrate or ammonium near1 acetate or ammonium near1 citrate or ammonium near1 carbonate)) and (fischer near1 tropsch or hydrogenation near1 carbon monoxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:24
16	176	(((((catalyst near1 regenerat\$3 or catalyst near1 activat\$3 or catalyst near1 enhancement or catalyst near1 treatment) and impregnat\$3 and (ammonium near1 nitrate or ammonium near1 acetate or ammonium near1 citrate or ammonium near1 carbonate)) and (fischer near1 tropsch or hydrogenation near1 carbon monoxide)) and cobalt	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:24

17	152	(((catalyst nearl regenerat\$3 or catalyst nearl activat\$3 or catalyst nearl enhancement or catalyst nearl treatment) and impregnat\$3 and (ammonium nearl nitrate or ammonium nearl acetate or ammonium nearl citrate or ammonium nearl carbonate)) and (fischer nearl tropsch or hydrogenation nearl carbon monoxide)) and cobalt) and reduc\$3 and calcin\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:25
18	64	(((catalyst nearl regenerat\$3 or catalyst nearl activat\$3 or catalyst nearl enhancement or catalyst nearl treatment) and impregnat\$3 and (ammonium nearl nitrate or ammonium nearl acetate or ammonium nearl citrate or ammonium nearl carbonate)) and (fischer nearl tropsch or hydrogenation nearl carbon monoxide)) and cobalt) and reduc\$3 and calcin\$3) and oxidiz\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:29
19	22	((((catalyst nearl regenerat\$3 or catalyst nearl activat\$3 or catalyst nearl enhancement or catalyst nearl treatment) and impregnat\$3 and (ammonium nearl nitrate or ammonium nearl acetate or ammonium nearl citrate or ammonium nearl carbonate)) and (fischer nearl tropsch or hydrogenation nearl carbon monoxide)) and cobalt) and reduc\$3 and calcin\$3) and oxidiz\$3) and (solvent or supercritical nearl fluid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/08/20 17:30

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NEWS	4	Feb 24	TEMA now available on STN
NEWS	5	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS	6	Feb 26	PCTFULL now contains images
NEWS	7	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS	8	Mar 24	PATDPAFULL now available on STN
NEWS	9	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS	10	Apr 11	Display formats in DGENE enhanced
NEWS	11	Apr 14	MEDLINE Reload
NEWS	12	Apr 17	Polymer searching in REGISTRY enhanced
NEWS	13	AUG 15	Indexing from 1937 to 1946 added to records in CA/CAPLUS
NEWS	14	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS	15	Apr 28	RDISCLOSURE now available on STN
NEWS	16	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS	17	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS	18	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS	19	May 19	Simultaneous left and right truncation added to WSCA
NEWS	20	May 19	RAPRA enhanced with new search field, simultaneous left and right truncation
NEWS	21	Jun 06	Simultaneous left and right truncation added to CBNB
NEWS	22	Jun 06	PASCAL enhanced with additional data
NEWS	23	Jun 20	2003 edition of the FSTA Thesaurus is now available
NEWS	24	Jun 25	HSDB has been reloaded
NEWS	25	Jul 16	Data from 1960-1976 added to RDISCLOSURE
NEWS	26	Jul 21	Identification of STN records implemented
NEWS	27	Jul 21	Polymer class term count added to REGISTRY
NEWS	28	Jul 22	INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available
NEWS	29	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS	30	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS	31	AUG 15	PATDPAFULL: one FREE connect hour, per account, in September 2003
NEWS	32	AUG 15	PCTGEN: one FREE connect hour, per account, in September 2003
NEWS	33	AUG 15	RDISCLOSURE: one FREE connect hour, per account, in September 2003
NEWS	34	AUG 15	TEMA: one FREE connect hour, per account, in September 2003
NEWS	35	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS	36	AUG 18	Simultaneous left and right truncation added to PASCAL
NEWS	37	AUG 18	FROSTI and KOSMET enhanced with Simultaneous Left and Right Truncation
NEWS	38	AUG 18	Simultaneous left and right truncation added to ANABSTR

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT  
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
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 NEWS WWW CAS World Wide Web Site (general information)

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=> file caplus

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	ENTRY	SESSION
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FILE COVERS 1907 - 20 Aug 2003 VOL 139 ISS 8

FILE LAST UPDATED: 19 Aug 2003 (20030819/ED)

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=> s (catalyst (2a) regenerat? or catalyst (2a) enhancement or catalyst (2a)  
 activat? or catalyst (2a) treatment)

634601 CATALYST  
 638605 CATALYSTS  
 812342 CATALYST  
 (CATALYST OR CATALYSTS)  
 151211 REGENERAT?  
 9851 CATALYST (2A) REGENERAT?  
 634601 CATALYST  
 638605 CATALYSTS  
 812342 CATALYST



(CATALYST OR CATALYSTS)  
 179923 ENHANCEMENT  
 9482 ENHANCEMENTS  
 186901 ENHANCEMENT  
 (ENHANCEMENT OR ENHANCEMENTS)  
 389 CATALYST (2A) ENHANCEMENT  
 634601 CATALYST  
 638605 CATALYSTS  
 812342 CATALYST  
 (CATALYST OR CATALYSTS)  
 1066975 ACTIVAT?  
 13440 CATALYST (2A) ACTIVAT?  
 634601 CATALYST  
 638605 CATALYSTS  
 812342 CATALYST  
 (CATALYST OR CATALYSTS)  
 1820761 TREATMENT  
 167662 TREATMENTS  
 1911755 TREATMENT  
 (TREATMENT OR TREATMENTS)  
 9017 CATALYST (2A) TREATMENT  
 L1 31486 (CATALYST (2A) REGENERAT? OR CATALYST (2A) ENHANCEMENT OR CATALYST (2A) ACTIVAT? OR CATALYST (2A) TREATMENT)

=> s l2 and (impregnat? (l) ammonium acetate or impregnat? (l) ammonium carbonate or impregnat? (l) ammonium citrate or impregnat? (l) ammonium nitrate)  
 L2 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l1 and (impregnat? (l) ammonium acetate or impregnat? (l) ammonium carbonate or impregnat? (l) ammonium citrate or impregnat? (l) ammonium nitrate)

132353 IMPREGNAT?  
 316362 AMMONIUM  
 385 AMMONIUMS  
 316506 AMMONIUM  
 (AMMONIUM OR AMMONIUMS)  
 456214 ACETATE  
 27741 ACETATES  
 467597 ACETATE  
 (ACETATE OR ACETATES)  
 6768 AMMONIUM ACETATE  
 (AMMONIUM(W)ACETATE)  
 21 IMPREGNAT? (L) AMMONIUM ACETATE  
 132353 IMPREGNAT?  
 316362 AMMONIUM  
 385 AMMONIUMS  
 316506 AMMONIUM  
 (AMMONIUM OR AMMONIUMS)  
 237962 CARBONATE  
 60160 CARBONATES  
 268004 CARBONATE  
 (CARBONATE OR CARBONATES)  
 5529 AMMONIUM CARBONATE  
 (AMMONIUM(W)CARBONATE)  
 40 IMPREGNAT? (L) AMMONIUM CARBONATE  
 132353 IMPREGNAT?  
 316362 AMMONIUM  
 385 AMMONIUMS  
 316506 AMMONIUM  
 (AMMONIUM OR AMMONIUMS)  
 74586 CITRATE

3341 CITRATES  
 75827 CITRATE  
     (CITRATE OR CITRATES)  
 2416 AMMONIUM CITRATE  
     (AMMONIUM(W)CITRATE)  
 17 IMPREGNAT? (L) AMMONIUM CITRATE  
 132353 IMPREGNAT?  
 316362 AMMONIUM  
     385 AMMONIUMS  
 316506 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 208086 NITRATE  
 67089 NITRATES  
 243904 NITRATE  
     (NITRATE OR NITRATES)  
 19822 AMMONIUM NITRATE  
     (AMMONIUM(W)NITRATE)  
 73 IMPREGNAT? (L) AMMONIUM NITRATE  
 L2 6 L1 AND (IMPREGNAT? (L) AMMONIUM ACETATE OR IMPREGNAT? (L) AMMONIUM CARBONATE OR IMPREGNAT? (L) AMMONIUM CITRATE OR IMPREGNAT? (L) AMMONIUM NITRATE)

=> d his

(FILE 'HOME' ENTERED AT 18:11:52 ON 20 AUG 2003)

FILE 'CAPLUS' ENTERED AT 18:12:04 ON 20 AUG 2003

L1 31486 S (CATALYST (2A) REGENERAT? OR CATALYST (2A) ENHANCEMENT OR CAT  
 L2 6 S L1 AND (IMPREGNAT? (L) AMMONIUM ACETATE OR IMPREGNAT? (L) AMM

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(FILE 'HOME' ENTERED AT 18:11:52 ON 20 AUG 2003)

FILE 'CAPLUS' ENTERED AT 18:12:04 ON 20 AUG 2003

L1 31486 S (CATALYST (2A) REGENERAT? OR CATALYST (2A) ENHANCEMENT OR CAT  
 L2 6 S L1 AND (IMPREGNAT? (L) AMMONIUM ACETATE OR IMPREGNAT? (L) AMM

=> s l1 and impregnat? and (ammonium acetate or ammonium carbonate or ammonium citrate or ammonium nitrate)

132353 IMPREGNAT?  
 316362 AMMONIUM  
     385 AMMONIUMS  
 316506 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 456214 ACETATE  
 27741 ACETATES  
 467597 ACETATE  
     (ACETATE OR ACETATES)  
 6768 AMMONIUM ACETATE  
     (AMMONIUM(W)ACETATE)  
 316362 AMMONIUM  
     385 AMMONIUMS  
 316506 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 237962 CARBONATE  
 60160 CARBONATES  
 268004 CARBONATE  
     (CARBONATE OR CARBONATES)  
 5529 AMMONIUM CARBONATE  
     (AMMONIUM(W)CARBONATE)  
 316362 AMMONIUM

385 AMMONIUMS  
316506 AMMONIUM  
(AMMONIUM OR AMMONIUMS)

74586 CITRATE  
3341 CITRATES  
75827 CITRATE  
(CITRATE OR CITRATES)

2416 AMMONIUM CITRATE  
(AMMONIUM(W) CITRATE)

316362 AMMONIUM  
385 AMMONIUMS  
316506 AMMONIUM  
(AMMONIUM OR AMMONIUMS)

208086 NITRATE  
67089 NITRATES  
243904 NITRATE  
(NITRATE OR NITRATES)

19822 AMMONIUM NITRATE  
(AMMONIUM(W) NITRATE)

L3 14 L1 AND IMPREGNAT? AND (AMMONIUM ACETATE OR AMMONIUM CARBONATE  
OR AMMONIUM CITRATE OR AMMONIUM NITRATE)

=> s l3 and (citric acid or acetic acid or succinic acid or malonic acid)

68698 CITRIC  
2 CITRICS  
68700 CITRIC  
(CITRIC OR CITRICS)

3703765 ACID  
1399217 ACIDS  
4163433 ACID  
(ACID OR ACIDS)

64192 CITRIC ACID  
(CITRIC(W) ACID)

193960 ACETIC  
22 ACETICS  
193969 ACETIC  
(ACETIC OR ACETICS)

3703765 ACID  
1399217 ACIDS  
4163433 ACID  
(ACID OR ACIDS)

170048 ACETIC ACID  
(ACETIC(W) ACID)

53920 SUCCINIC

3703765 ACID  
1399217 ACIDS  
4163433 ACID  
(ACID OR ACIDS)

33302 SUCCINIC ACID  
(SUCCINIC(W) ACID)

22399 MALONIC  
1 MALONICS

22399 MALONIC  
(MALONIC OR MALONICS)

3703765 ACID

1399217 ACIDS

4163433 ACID

(ACID OR ACIDS)

19247 MALONIC ACID  
(MALONIC(W) ACID)

L4 3 L3 AND (CITRIC ACID OR ACETIC ACID OR SUCCINIC ACID OR MALONIC  
ACID)

=> s 14 and coblat  
4 COBLAT  
L5 0 L4 AND COBLAT

=> s 13 and cobalt  
322578 COBALT  
92 COBALTS  
322581 COBALT  
(COBALT OR COBALTS)  
L6 2 L3 AND COBALT

=> d 16 ibib ab 1-2

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2003:590799 CAPLUS  
DOCUMENT NUMBER: 139:119732  
TITLE: Supported **catalyst activation**  
INVENTOR(S): Clark, Janet Renee; Daage, Michel; Koveal, Russell  
John  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 9 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003144130	A1	20030731	US 2002-59918	20020129

PRIORITY APPLN. INFO.: US 2002-59918 20020129

AB A process for activating a supported metal catalyst or catalyst precursor useful for the hydrogenation of carbon monoxide to form a mixt. of hydrocarbons, comprising reducing with a hydrogen-contg. gas at elevated temp. so that at least a portion is in the metallic state, **impregnating** under a non-oxidizing atm. with a soln. of at least one member selected from the group consisting of ammonium salts, alkyl ammonium salts and weak org. acids, optionally further including ammonia, to the point where it has absorbed a vol. of soln. equal to at least .apprx.10% of its calcd. pore vol., oxidizing with a gaseous oxidant in the presence of the **impregnating** soln. and reducing with hydrogen-contg. gas at elevated temps. to form an active catalyst. The steps beginning with the **impregnation** may be repeated. Optionally, the catalyst may be calcined after the oxidn. step and/or passivated after activation.

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2003:590797 CAPLUS  
DOCUMENT NUMBER: 139:119730  
TITLE: Supported **catalyst treatment**  
INVENTOR(S): Daage, Michel; Koveal, Russell John; Clark, Janet  
Renee; Marler, David Owen  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 13 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2003144128	A1	20030731	US 2002-59928	20020129
WO 2003064040	A1	20030807	WO 2002-US41513	20021227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

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PRIORITY APPLN. INFO.: US 2002-59928 A 20020129

AB Supported metal catalysts for the hydrogenation of carbon monoxide to form a mixt. of hydrocarbons are regenerated by decreasing the hydrocarbon content of the catalyst, preferably by contact with hydrogen-contg. gas at elevated temps., **impregnating** under a non-oxidizing atm. with a soln. of at least one of an ammonium salt and an alkyl ammonium salt, optionally in combination with up to five moles of ammonia per L of soln. to the point where it has absorbed a vol. of soln. equal to at least .apprx.10% of its calcd. pore vol.; oxidizing the catalyst with a gaseous oxidant in the presence of the **impregnating** soln. and **activating** the catalyst by redn. with hydrogen at elevated temps. Optionally, the catalyst is calcined after the oxidn. step, and passivated after the activation step.

=> d his

(FILE 'HOME' ENTERED AT 18:11:52 ON 20 AUG 2003)

FILE 'CAPLUS' ENTERED AT 18:12:04 ON 20 AUG 2003

L1 31486 S (CATALYST (2A) REGENERAT? OR CATALYST (2A) ENHANCEMENT OR CAT  
L2 6 S L1 AND (IMPREGNAT? (L) AMMONIUM ACETATE OR IMPREGNAT? (L) AMM  
L3 14 S L1 AND IMPREGNAT? AND (AMMONIUM ACETATE OR AMMONIUM CARBONATE  
L4 3 S L3 AND (CITRIC ACID OR ACETIC ACID OR SUCCINIC ACID OR MALONI  
L5 0 S L4 AND COBLAT  
L6 2 S L3 AND COBALT

=> s 13 not 16

L7 12 L3 NOT L6

=> d 17 ibib ab 1-12

L7 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:874645 CAPLUS

DOCUMENT NUMBER: 135:373565

TITLE: **Activation of sorbent-catalysts**

INVENTOR(S): Zimin, N. A.; Solin, M. N.; Tamam'yan, A. N.;

Khazanov, A. A.; Leif, V. E.; Vnuchkova, V. A.

PATENT ASSIGNEE(S): Otkrytoe Aktsionernoe Obshchestvo "Zarya", Russia

SOURCE: Russ., No pp. given

CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY-ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2150321	C1	20000610	RU 1999-108862	19990429

PRIORITY APPLN. INFO.:

RU 1999-108862

19990429

AB The invention relates to sorbent technique and can be used for regeneration of catalytic activity of sorbent-catalysts inactivated during long-term storage. A method is proposed for **activation** of sorbent-catalysts that involves prepg. an ammonia soln., addn. Cu and Cr salts as catalytic addns. to the heated soln., treatment of the inactive sorbent-catalyst with the prepd. **impregnating** soln. and its thermal treatment. The NH<sub>4</sub>OH soln. contg. 10-25 wt.% (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub> and added Cu and Cr salts is dild. with water to the (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub> content of 3-15 wt.%. Then, 1-5 wt.% alkali metal carbonate is added, and thermal treatment is carried out at 100-250.degree.. The method ensures regeneration of the catalytic activity up to the initial level.

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:592916 CAPLUS

DOCUMENT NUMBER: 133:174236

TITLE: Activating film for chemiluminescent assays and methods for use

INVENTOR(S): Moller, Uwe; Levison, Derek; Levison, Stuart

PATENT ASSIGNEE(S): Princeton Separations, USA

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000049406	A1	20000824	WO 2000-US3863	20000216
W:		AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
EP 1153296	A1	20011114	EP 2000-908658	20000216
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO		

PRIORITY APPLN. INFO.:

US 1999-120125P P 19990216

WO 2000-US3863 W 20000216

AB The present invention relates to chemiluminescent assays which incorporate a second film or membrane which includes a solid chem. component for activation of a stable dioxetane. Decompn. of the stable dioxetane can be accomplished using a combination of heat and chem. treatment. Dot-blot hybridization of methylene blue-labeled oligonucleotide to target cDNA encoding alc. dehydrogenase involved detection of hybridization by placing the hybridized membrane with bound target onto a sheet of filter paper **impregnated with ammonium carbonate** and covering with a sheet of plastic. In the dark, a sheet of Hyperfilm ECL was placed over the plastic sheet and the sheets were sandwiched between glass plates. The sandwich was incubated at 80.degree. for 15 min to release the base from the filter paper and activate the stable chemiluminescent precursor present on the hybridized membrane. The film was developed using std. techniques; successful hybridization was obsd. as black spots on the Hyperfilm ECL. The lowest quantity of DNA detected was in the range of 25 fmoles.

REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:405153 CAPLUS  
DOCUMENT NUMBER: 133:90980  
TITLE: Pd/MgO: catalyst characterization and phenol  
hydrogenation activity  
AUTHOR(S): Claus, Peter; Berndt, Heinz; Mohr, Christian; Radnik,  
Jorg; Shin, Eun-Jae; Keane, Mark A.  
CORPORATE SOURCE: Department of Catalysis, Institute for Applied  
Chemistry, Berlin, D-12489, Germany  
SOURCE: Journal of Catalysis (2000), 192(1), 88-97  
CODEN: JCTLA5; ISSN: 0021-9517  
PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The gas-phase hydrogenation of PhOH at 423-573 K was studied over a 1 wt%  
Pd/MgO catalyst prep'd. by **impregnation** of MgO with  $(\text{NH}_4)_2\text{PdCl}_6$ .  
The **catalyst** precursor was **activated** by precalcination  
in air at 473 K followed by redn. in H at 573 K. Temp.-programmed  
redn./desorption (monitoring H consumption and  $\text{NH}_3$ ,  $\text{H}_2\text{O}$ , CO, and  $\text{CO}_2$   
release) revealed the presence of **ammonium carbonate**  
and/or ammonium bicarbonate on the active surface in addn. to metallic Pd.  
The latter was not detectable by x-ray diffraction due to high metal  
dispersion, however, TEM revealed that the mean Pd particle diam. is 1.3  
.+- .0.2 nm, which corresponds to a Pd dispersion of 71%. Besides  
conventional and high-resoln. TEM, selected area electron diffraction  
provides some insight into the fine structure of the Pd crystallites.  
**Impregnation** followed by calcination transforms MgO to  $\text{Mg}(\text{OH})_2$ ,  
while addnl. redn. generates a surface phase that is composed of both  
needle-like periclase and  $\text{Mg}(\text{OH})_2$ . X-ray photoelectron spectrometric  
analyses of the **activated catalyst** established the  
presence of zero-valent Pd which appears to be electron rich as a result  
of metal-support interaction; a degree of Pd charging also is evident as  
well as residual surface Cl. The effects on fractional PhOH conversion  
and reaction selectivity of varying such process variables as reaction  
time, temp., and PhOH molar feed rate are considered and the possibility  
of thermodyn. limitations is addressed. Hydrogenation proceeds in a  
stepwise fashion with cyclohexanone as the partially hydrogenated product  
and cyclohexanol as the fully hydrogenated product. The catalyst gives  
96% selectivity with respect to cyclohexanone at 423 K, but the  
cyclohexanone yield decreases at higher temps. as conversion declines and  
cyclohexanol is increasingly preferred. Conversion and selectivity were  
both stable with prolonged catalyst use, i.e., time on stream >55 h. (c)  
2000 Academic Press.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:464524 CAPLUS  
DOCUMENT NUMBER: 113:64524  
TITLE: Rhodium-containing solution for manufacture of waste  
gas **treatment catalysts** and its  
preparation  
INVENTOR(S): Sato, Yasunori; Sakakibara, Yoshinobu  
PATENT ASSIGNEE(S): Cataler Industrial Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6\_pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02102736	A2	19900416	JP 1988-255791	19881013
PRIORITY APPLN. INFO.:			JP 1988-255791	19881013

AB The title soln. is a HNO<sub>3</sub> soln. contg. .gtoreq.0.1 mol (based on 1 mol Rh) weakly basic nitrates (W) of NH<sub>4</sub>NO<sub>3</sub> and/or rare earth metal nitrate salts. The soln. is prepd. by (a) mixing cryst. Rh hydroxide and W, dissolving the mixt. in HNO<sub>3</sub>, crystg. the soln., and dissolving the resulting crystal in H<sub>2</sub>O or HNO<sub>3</sub>, or (b) mixing cryst. Rh(NO<sub>3</sub>)<sub>3</sub> and W, dissolving the mixt. in H<sub>2</sub>O or HNO<sub>3</sub>, or (c) dissolving W or an aq. soln. of W in an aq. Rh(NO<sub>3</sub>)<sub>3</sub> soln. Using the Rh(NO<sub>3</sub>)<sub>3</sub>-contg. soln., high loadings of Rh on a catalyst support are obtained.

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1988:495828 CAPLUS  
 DOCUMENT NUMBER: 109:95828  
 TITLE: Method for reactivation of microporous crystalline aluminosilicate catalysts  
 INVENTOR(S): Guenschel, Hubert; Lantzsch, Joachim; Rehm, Richard; Thiele, Eberhard; Anders, Klaus; Nowak, Siegfried; Saffert, Werner  
 PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Ger. Dem. Rep.  
 SOURCE: Ger. (East), 4 pp.  
 CODEN: GEXXA8  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 254530	A1	19880302	DD 1986-297390	19861210
PRIORITY APPLN. INFO.:			DD 1986-297390	19861210

AB A method for reactivation of cryst. aluminosilicate catalysts of type ZSM 5 for catalytic MeOH- and/or hydrocarbon conversion (e.g., for manuf. of lower olefins, monoaroms. or carburetor fuel) comprises contacting coke-free spent aluminosilicate with an aq. soln. of org. acids or their ammonium salts at <100.degree., washing with distd. water for >1 h until acid- or salt free, drying at >100.degree., and calcining at 450-500.degree.. Thus, a spent HZSM 5 zeolite catalyst was **impregnated** with 0.2 N aq. oxalic acid at 80.degree. for 90 min, rinsed with distd. water, dried at 160.degree. in N, and slowly heated at 500.degree. to obtain a reactivated catalyst (31:1 SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> mol ratio), which was used to convert MeOH and crude C<sub>6</sub>H<sub>6</sub> to yield C<sub>2</sub>H<sub>4</sub> 17.1, C<sub>3</sub>H<sub>6</sub> 21.5, and BTX 14.5 wt.% at 99% MeOH and 52% C<sub>6</sub>H<sub>6</sub> conversions.

L7 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1988:442910 CAPLUS  
 DOCUMENT NUMBER: 109:42910  
 TITLE: Monolithic catalysts for treatment of automobile exhaust gases  
 INVENTOR(S): Shikame, Yoshihiro; Sofue, Kazuaki; Minami, Mitsuru; Tsuji, Masato; Azuma, Takenori  
 PATENT ASSIGNEE(S): Toyota Motor Corp., Japan; Cataler Industrial Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63007847	A2	19880113	JP 1986-151811	19860630
PRIORITY APPLN. INFO.:			JP 1986-151811	19860630

AB The title catalysts are prep'd. by **impregnating** a monolithic support with an aq. slurry contg. inorg. acids and ceramic powders, drying, and then loading active metal catalyst components (e.g., Pt, Rh, or Pd) on the coated monolithic support. Thus, a honeycomb cordierite support (diam. 100 mm, length 100 mm) was **impregnated** with an aq. slurry (contg. alumina powder 1000, a 10 wt.% alumina sol 700, and a 40 wt.% **ammonium nitrate** soln. 700 g), dried, immersed in a 2 N HCl aq. soln. for 13 min, dried, and then loaded with Pt and Rh to obtain a monolithic catalyst. In the catalyst duration test at 800.degree. +/- 5.degree. for 200 h, the removal of CO and NOx emissions were 94% and 96%, resp., compared with 81% and 83% for a conventional catalyst.

L7 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:153426 CAPLUS  
DOCUMENT NUMBER: 108:153426  
TITLE: Enhancing activity of zeolite catalysts  
INVENTOR(S): Miale, Joseph Nicolas; Chang, Clarence Dayton  
PATENT ASSIGNEE(S): Mobil Oil Corp., USA  
SOURCE: Pat. Specif. (Aust.), 9 pp.  
CODEN: ALXXAP  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AU 567686	B2	19871203	AU 1983-17991	19830815
AU 8317991	A1	19850221		
PRIORITY APPLN. INFO.:			AU 1983-17991	19830815

AB A method is described for enhancing the activity of a high-silica zeolite having a SiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> mole ratio of >500. The method includes contacting the material with an ammoniacal soln. of an alkali metal aluminate at 20-50.degree. and pH .gtoreq.10 for 0.5 h-5 days, whereby the Al from the alkali metal aluminate is inserted into the lattice of the zeolite. Thus, 2g ZSM-5 zeolite having a SiO<sub>2</sub>:Al<sub>2</sub>O<sub>3</sub> ratio > 26,000 and Na content of 0.23 wt.% was vacuum **impregnated** with a soln. of Na aluminate which was dild. with an equal vol. of 12 N NH<sub>4</sub>OH at pH 12.4. After 30 min, the sample was dried, subjected to 3 cycles of NH<sub>4</sub>NO<sub>3</sub> treatment, followed by hot-water washing, drying, and calcining at 538.degree.. The product was evaluated for its .alpha.-activity. The process considerably increased its activity as compared to a similar nontreated zeolite.

L7 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:20301 CAPLUS  
DOCUMENT NUMBER: 106:20301  
TITLE: Acid-catalyzed organic compound conversion  
INVENTOR(S): Chang, Clarence D.; Miale, Joseph N.  
PATENT ASSIGNEE(S): Mobil Oil Corp., USA  
SOURCE: U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 726,194, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 11  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4605803	A	19860812	US 1985-787183	19851015
US 4435516	A	19840306	US 1981-317037	19811121
US 4550092	A	19851029	US 1983-555118	19831125
PRIORITY APPLN. INFO.:			US 1981-317037	19811121
			US 1983-555118	19831125
			US 1985-726194	19850422

AB A high-silica zeolite catalyst is contacted with an ammoniacal soln. of an alkali metal aluminate at 20-50.degree. and pH .gtoreq. 10 to increase the .alpha. value of the zeolite. The zeolite is useful as a catalyst for the conversion of alcs., compds. contg. carbonyl groups, and/or ethers to hydrocarbons. Thus, a zeolite (ZSM-5) was vacuum **impregnated** with a soln. of Na aluminate which was dild. with an equal vol. of 12N NH4OH. The pH was 12.4. After 30 min, the zeolite was dried, submitted to 3 cycles of 1N NH4NO3 treatment followed by hot water washing, and calcined at 538.degree.. The treated zeolite had .alpha. value 12. The catalyst was used at 500.degree. for the conversion of MeOH to hydrocarbons, giving .apprx.99% conversion to a product contg. ethylene 9.8, propene 37.3, butene 18.5, and pentene 6.4%.

L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1983:493082 CAPLUS  
DOCUMENT NUMBER: 99:93082  
TITLE: Catalyst for treating an effluent gas  
INVENTOR(S): Ono, Tetsuji; Tsuchitani, Kazuo; Yamauchi, Shin; Yonehara, Kiyoshi  
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan  
SOURCE: Fr. Demande, 28 pp.  
CODEN: FRXXBL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2515984	A1	19830513	FR 1982-18856	19821110
FR 2515984	B1	19870807		
JP 58081441	A2	19830516	JP 1981-179819	19811111
JP 61040461	B4	19860909		
US 4448895	A	19840515	US 1982-439191	19821104
PRIORITY APPLN. INFO.:			JP 1981-179819	19811111

AB A trivalent catalyst for simultaneous conversion of CO, hydrocarbons, and NOx in internal combustion engine exhaust gases comprises an activated alumina support on the surface of, which are deposited Ce oxide, Fe oxide, and .gtoreq.1 noble metal (Pd, Pt, or Rh) to a depth of .ltoreq.300 .mu.m, preferably .ltoreq.200 .mu.m. Thus, 1 L of alumina support (pore diam. .apprx.150 .ANG.) is **impregnated** by 470 cm3 aq. soln. contg. 400 cm3 deionized water, 10 g Ce as Ce acetate, 5 g NH4 acetate, 4.0 g Fe as Fe **ammonium citrate**, and aq. NH3 to regulate pH at 7.25 and make 470 cm3, dried at 150.degree. for 2 h, calcined in air at 500.degree. for 3 h, **impregnated** with 470 cm3 aq. soln. contg. 0.50 g Pt as H2PtCl6, 0.214 g Pd as Pd(NO3)2, and 0.032 g Rh as RhCl3, dried at 150.degree. for 2 h, and calcined in air at 500.degree. for 2 h. The catalyst converted CO 83, hydrocarbons 95, and NO 53% from an automobile exhaust gas.

L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1983:59225 CAPLUS  
DOCUMENT NUMBER: 98:59225  
TITLE: Catalytic composition of platinum and rhodium on a

support and a catalytic composition for automobile exhaust

INVENTOR(S): Kim, Gwan  
 PATENT ASSIGNEE(S): Grace, W. R., and Co., USA  
 SOURCE: Fr. Demande, 26 pp.  
 CODEN: FRXXBL

DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2503580	A1	19821015	FR 1982-6284	19820409
FR 2503580	B1	19850329		
US 4405506	A	19830920	US 1981-253970	19810413
GB 2096482	A	19821020	GB 1982-8788	19820325
GB 2096482	B2	19841128		
JP 57174137	A2	19821026	JP 1982-50295	19820330
DE 3213141	A1	19821111	DE 1982-3213141	19820408
			US 1981-253970	19810413

PRIORITY APPLN. INFO.:

AB A Pt-Rh catalytic compn. for treatment of exhaust gas was prepd. by **impregnating** spheroidal particles of Ce-Al oxide with a mixt. of a Pt-sulfite complex in acid, a Rh(NO<sub>3</sub>)<sub>3</sub> soln., and a Rh-sulfite complex in acid, and by activating the **impregnated** support. Thus, 152.2 g Ce-Al oxide particles were sprayed with a soln. of Pd-sulfite complex contg. 71.2 mg Pd and 170 mg dibasic **ammonium citrate** [7632-50-0], dried with air 3 h at 135.degree., and sprayed with a mixt. contg. a Pt-sulfide complex soln. (177.9 mg total Pt), Rh(NO<sub>3</sub>)<sub>3</sub> and Rh-sulfite complex (each Rh soln. supplying 50% of the total 17.8 mg Rh). The **impregnated** particles were dried with air 3 h at 135.degree. and reduced in an H<sub>2</sub> and N 95% atm. for 1 h at 400.degree.. The resulting catalyzer contained 0.593, 0.237, and 0.0593 g/L, resp., Pt, Pd, and Rh (.apprx.10:4:1), and removed hydrocarbons 95, CO 85, and NO 85% from automobile exhaust gases under a stoichiometric O supply.

L7 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1981:53639 CAPLUS

DOCUMENT NUMBER: 94:53639

TITLE: Preparing a nickel catalyst for hydrogenation of unsaturated substances

INVENTOR(S): Andreev, Yu. B.; Veklov, V. A.; Masagutov, R. M.; Morozov, B. F.; Pankratova, N. N.

PATENT ASSIGNEE(S): USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obratzsy, Tovarnye Znaki 1980, (35), 25.

CODEN: URXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 764719	T	19800923	SU 1978-2615853	19780516
			SU 1978-2615853	19780516

PRIORITY APPLN. INFO.:

AB A Ni catalyst is prepd. by **impregnating** a Cr oxide support with a soln. contg. 0.35-1.87 g Ni(NO<sub>3</sub>)<sub>2</sub> and 0.06-1.20 g CO(NH<sub>2</sub>)<sub>2</sub>/g. of support, or 1.2-1.69 g [Ni(NH<sub>3</sub>)<sub>6</sub>]CO<sub>3</sub> and 0.43-0.61 g. (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub>/g. of support, with the concn. of Ni compd. in the **impregnating** soln. 30-150 g/L calcd. as Ni, and then calcining.

ACCESSION NUMBER: 1972:47340 CAPLUS  
DOCUMENT NUMBER: 76:47340  
TITLE: Antistatic polyamide fibers  
INVENTOR(S): Morika, Hiroyuki  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Tokkyo Koho, 5 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46008960	B4	19710306	JP	19670711

AB A nylon textile was **impregnated** with a soln. of methoxymethylated nylon (HCHO content 3-15%) and a polyethylene glycol deriv. in the presence of a catalyst to give a soft textile with washfast antistatic properties as well as improved wettability. The polyethylene glycol derivs. used were polyethylene glycol phosphate (I) [25852-91-9] and polyethylene glycol lauryl phosphate [25852-45-3], and the catalysts were **ammonium citrate** (II), oxalate, and maleate. For example, a nylon textile was **impregnated** with 100 parts 60% aq. MeOH contg. the modified nylon (HCHO content 5.6%) 0.3, I 1.5 and 4% aq. II 2.5 parts for 30 sec, dried at 120.deg. for 5 min, and cured at 160.deg. for 5 min to give a product having static charge 1000 V (1600 V after 10 washings), compared with 4500 (6000 V) for that finished without I.

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NEWS	24	Jun 25	HSDB has been reloaded
NEWS	25	Jul 16	Data from 1960-1976 added to RDISCLOSURE
NEWS	26	Jul 21	Identification of STN records implemented
NEWS	27	Jul 21	Polymer class term count added to REGISTRY
NEWS	28	Jul 22	INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available
NEWS	29	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
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NEWS	33	AUG 15	RDISCLOSURE: one FREE connect hour, per account, in September 2003
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NEWS	38	AUG 18	Simultaneous left and right truncation added to ANABSTR

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=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 21 Aug 2003 VOL 139 ISS 8

FILE LAST UPDATED: 20 Aug 2003 (20030820/ED)

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=> s (regenerat? (1a) catalyst or activat? spent catalyst or activat? used  
 catalyst or rejuvenat? (1a) catalyst)

151223 REGENERAT?

634669 CATALYST

638693 CATALYSTS

812425 CATALYST

(CATALYST OR CATALYSTS)

8145 REGENERAT? (1A) CATALYST

1067127 ACTIVAT?

54509 SPENT

7 SPENTS

54513 SPENT  
     (SPENT OR SPENTS)  
 634669 CATALYST  
 638693 CATALYSTS  
 812425 CATALYST  
     (CATALYST OR CATALYSTS)  
     0 ACTIVAT? SPENT CATALYST  
         (ACTIVAT? (W) SPENT (W) CATALYST)  
 1067127 ACTIVAT?  
 3115409 USED  
     4 USEDS  
 3115412 USED  
     (USED OR USEDS)  
 634669 CATALYST  
 638693 CATALYSTS  
 812425 CATALYST  
     (CATALYST OR CATALYSTS)  
     1 ACTIVAT? USED CATALYST  
         (ACTIVAT? (W) USED (W) CATALYST)  
     1 REJUVANAT?  
 634669 CATALYST  
 638693 CATALYSTS  
 812425 CATALYST  
     (CATALYST OR CATALYSTS)

L1      0 REJUVANAT? (1A) CATALYST  
         8146 (REGENERAT? (1A) CATALYST OR ACTIVAT? SPENT CATALYST OR ACTIVAT  
             ? USED CATALYST OR REJUVANAT? (1A) CATALYST)

=> s l1 and (fischer (1a) tropesch or hydrocarbon (1a) synthesis)

20786 FISCHER  
 26 FISCHERS  
 20797 FISCHER  
     (FISCHER OR FISCHERS)  
 6511 TROPSCH  
 6424 FISCHER (1A) TROPSCH  
 299804 HYDROCARBON  
 298028 HYDROCARBONS  
 460129 HYDROCARBON  
     (HYDROCARBON OR HYDROCARBONS)  
 1077687 SYNTHESIS  
     3 SYNTHESISES  
 59765 SYNTHESSES  
 1111860 SYNTHESIS  
     (SYNTHESIS OR SYNTHESISES OR SYNTHESSES)

L2      3454 HYDROCARBON (1A) SYNTHESIS  
         119 L1 AND (FISCHER (1A) TROPSCH OR HYDROCARBON (1A) SYNTHESIS)

=> s l4 and cobalt

L4 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l2 and cobalt

322623 COBALT  
 92 COBALTS  
 322626 COBALT  
     (COBALT OR COBALTS)

L3      37 L2 AND COBALT

=> s l3 and (ammonium nitrate or ammonium acetate or ammonium carbonate or ammonium formate)

316406 AMMONIUM

385 AMMONIUMS  
 316550 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 208117 NITRATE  
 67098 NITRATES  
 243940 NITRATE  
     (NITRATE OR NITRATES)  
 19827 AMMONIUM NITRATE  
     (AMMONIUM(W) NITRATE)  
 316406 AMMONIUM  
     385 AMMONIUMS  
 316550 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 456255 ACETATE  
 27742 ACETATES  
 467637 ACETATE  
     (ACETATE OR ACETATES)  
 6770 AMMONIUM ACETATE  
     (AMMONIUM(W) ACETATE)  
 316406 AMMONIUM  
     385 AMMONIUMS  
 316550 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 237998 CARBONATE  
 60162 CARBONATES  
 268041 CARBONATE  
     (CARBONATE OR CARBONATES)  
 5529 AMMONIUM CARBONATE  
     (AMMONIUM(W) CARBONATE)  
 316406 AMMONIUM  
     385 AMMONIUMS  
 316550 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 36280 FORMATE  
 3573 FORMATES  
 37646 FORMATE  
     (FORMATE OR FORMATES)  
 1525 AMMONIUM FORMATE  
     (AMMONIUM(W) FORMATE)  
 L4           0 L3 AND (AMMONIUM NITRATE OR AMMONIUM ACETATE OR AMMONIUM CARBONATE OR AMMONIUM FORMATE)

=> s 13 and ammonium salt?

316406 AMMONIUM  
     385 AMMONIUMS  
 316550 AMMONIUM  
     (AMMONIUM OR AMMONIUMS)  
 1055499 SALT?  
 39409 AMMONIUM SALT?  
     (AMMONIUM(W) SALT?)

L5           1 L3 AND AMMONIUM SALT?

=> d 15 ibib ab

L5   ANSWER 1 OF 1   CAPLUS   COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER:       2003:590800   CAPLUS  
 DOCUMENT NUMBER:       139:119733  
 TITLE:                Catalyst enhancement  
 INVENTOR(S):           Koveal, Russell John; Daage, Michel; Mauldin, Charles  
                       Harrison; Clark, Janet Renee  
 PATENT ASSIGNEE(S):    USA  
 SOURCE:                U.S. Pat. Appl. Publ., 11 pp.



DOCUMENT TYPE: CODEN: USXXCO  
LANGUAGE: Patent  
FAMILY ACC. NUM. COUNT: 1 English  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003144131	A1	20030731	US 2002-59927	20020129
WO 2003064355	A1	20030807	WO 2003-US198	20030103
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-59927 A 20020129

AB A process for enhancing metal catalysts for carbon monoxide hydrogenation comprising reducing the catalyst so that at least a portion is in the metallic state, impregnating under a non-oxidative atm. with a soln. of a salt of at least one metal, optionally in combination with at least one of an ammonium salt, an alkyl ammonium salt, a weak org. acid and ammonia, oxidizing with a gaseous oxidant in the presence of the impregnating soln., and reducing to form an active catalyst. Used catalysts enhanced by the process are initially treated to decrease their hydrocarbon content. The treatment may be carried out in a single reactor, or by carrying out up to all steps after catalyst may be withdrawn from a reactor and returned to at least one reactor, both preferably during operations. Up to all steps may be effected in a subsequent reactor, or in specialized app.

=> d his

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FILE 'CAPLUS' ENTERED AT 17:52:44 ON 21 AUG 2003

L1 8146 S (REGENERAT? (1A) CATALYST OR ACTIVAT? SPENT CATALYST OR ACTI  
L2 119 S L1 AND (FISCHER (1A) TROPSCH OR HYDROCARBON (1A) SYNTHESIS)  
L3 37 S L2 AND COBALT  
L4 0 S L3 AND (AMMONIUM NITRATE OR AMMONIUM ACETATE OR AMMONIUM CARB  
L5 1 S L3 AND AMMONIUM SALT?

=> s l3 and impregnat?

132364 IMPREGNAT?

L6 3 L3 AND IMPREGNAT?

=> s l6 not l5

L7 2 L6 NOT L5

=> d l7 ibib ab 1-2

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:590798 CAPLUS

DOCUMENT NUMBER: 139:119731

TITLE: Combined solvent extraction-oxidation-reduction-acid washing for regeneration of used supported catalysts for carbon monoxide hydrogenation

INVENTOR(S): Clark, Janet Renee; Koveal, Russell John; Daage, Michel  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 10 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003144129	A1	20030731	US 2002-59917	20020129
WO 2003064033	A1	20030807	WO 2002-US41512	20021227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-59917 A 20020129

AB Regeneration of spent supported metal catalysts for CO hydrogenation reactions (e.g., Co, Ni, Cu, Ru, Rh, Re, Pd, Pt, Os, and Ir) is carried out by a sequential process consisting of: (1) decreasing the hydrocarbon content on the catalyst, (2) **impregnating**, under non-oxidative atm., with a soln. of a weak org. acid, until the catalyst has absorbed >10 vol.% (preferably 10-1000%) of its calcd. pore vol., (3) oxidizing with a gaseous oxidant in the presence of the weak org. acid, and (4) reducing the catalyst with a hydrogen-contg. gas to form the active catalyst. Hydrocarbons on the catalyst (esp. for **Fischer-Tropsch** catalysts) can be removed by contacting the catalyst with one or more of the following: (1) a hydrogen-contg. gas, (2) a solvent or supercrit. fluid, or (3) an oxygen-contg. gas or steam. Optionally, the catalyst is calcined after the oxidn. step, and passivated after the activation step. A preferred means of decreasing the hydrocarbon content of the catalyst is contacting it with a hydrogen-contg. gas at high temps. The org. acid has the general formula R(COOH)<sub>n</sub> (n = 1-3; R is a cyclic, aliph., satd., or unsatd. moiety substituted with one or more NO<sub>2</sub>, NH<sub>2</sub>, OH, and alkoxy).

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1949:52756 CAPLUS  
 DOCUMENT NUMBER: 43:52756  
 ORIGINAL REFERENCE NO.: 43:9420f-h  
 TITLE: **Hydrocarbon synthesis**  
 INVENTOR(S): Voorhies, Alexis, Jr.  
 PATENT ASSIGNEE(S): Standard Oil Development Co.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2479439		19490816	US	

AB In the **synthesis** of **hydrocarbons** from CO and H an unpromoted fluidized Fe catalyst is used; 1 mol. water vapor/7-15 mol. H is introduced with the feed gas, and an alkali metal promoter,

specifically KF, is gradually introduced to obtain a slow and even **impregnation** of the catalyst with the promoter up to the point where the optimum amt. is present, generally when the catalyst reaches a KF content of 0.5-2.5%. The water vapor prevents excess carbonization of the catalyst caused by the promoter, and an increase in the amt. of water vapor may be used to reduce excess carbonization. In an example, KF is introduced as a 0.1% aq. soln. over a period of 150 hrs. until the Fe catalyst contains 1% KF. The process is also applicable to **hydrocarbon synthesis** with Co or Ni catalysts. Cf. U.S. 2,475,214 (C.A. 43, 8120g.)

=> d his

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L1      8146 S (REGENERAT? (1A) CATALYST OR ACTIVAT? SPENT CATALYST OR ACTI
L2      119 S L1 AND (FISCHER (1A) TROPSCH OR HYDROCARBON (1A) SYNTHESIS)
L3      37 S L2 AND COBALT
L4      0 S L3 AND (AMMONIUM NITRATE OR AMMONIUM ACETATE OR AMMONIUM CARB
L5      1 S L3 AND AMMONIUM SALT?
L6      3 S L3 AND IMPREGNAT?
L7      2 S L6 NOT L5
```

=> s l3 and hydrogen (3a) oxygen

```
784538 HYDROGEN
5191 HYDROGENS
787464 HYDROGEN
      (HYDROGEN OR HYDROGENS)
606570 OXYGEN
5975 OXYGENS
610740 OXYGEN
      (OXYGEN OR OXYGENS)
25661 HYDROGEN (3A) OXYGEN
L8      1 L3 AND HYDROGEN (3A) OXYGEN
```

=> d l8 ibib ab

```
L8      ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:      2002:888634  CAPLUS
DOCUMENT NUMBER:       137:372382
TITLE:                 Pressure-swing regeneration of spent Fischer
                        -Tropsch catalysts
INVENTOR(S):           Wright, Harold A.; Rajee, Ajoy; Espinoza, Rafael L.
PATENT ASSIGNEE(S):    Conoco Inc., USA
SOURCE:                PCT Int. Appl., 28 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:         Patent
LANGUAGE:              English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002092227	A1	20021121	WO 2002-US15460	20020517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2001-291924P P 20010517

AB Spent **Fischer-Tropsch** catalysts are  
**regenerated** by treatment of the catalysts at a pressure lower than  
the av. **Fischer-Tropsch** reaction pressure,  
specifically at 10-350 psig, and a temp. 0-150.degree. higher than the  
mean av. temp. of the synthesis reaction, e.g., at .apprx.300.degree., for  
>4 h. The regenerating gases contain **hydrogen, oxygen**  
, steam, and possibly inert (diluent) gases (e.g., N<sub>2</sub>). The method is  
suitable for **Fischer-Tropsch** catalysts contg. Co, Ru,  
Co-Ru, Co-Re, Fe, Ni, and oxide supports (SiO<sub>2</sub>, TiO<sub>2</sub>, TiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>,  
AlF<sub>3</sub>, and fluorided Al<sub>2</sub>O<sub>3</sub>). The method may be used as part of a cycling  
**Fischer-Tropsch** synthesis-regeneration process.

REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT